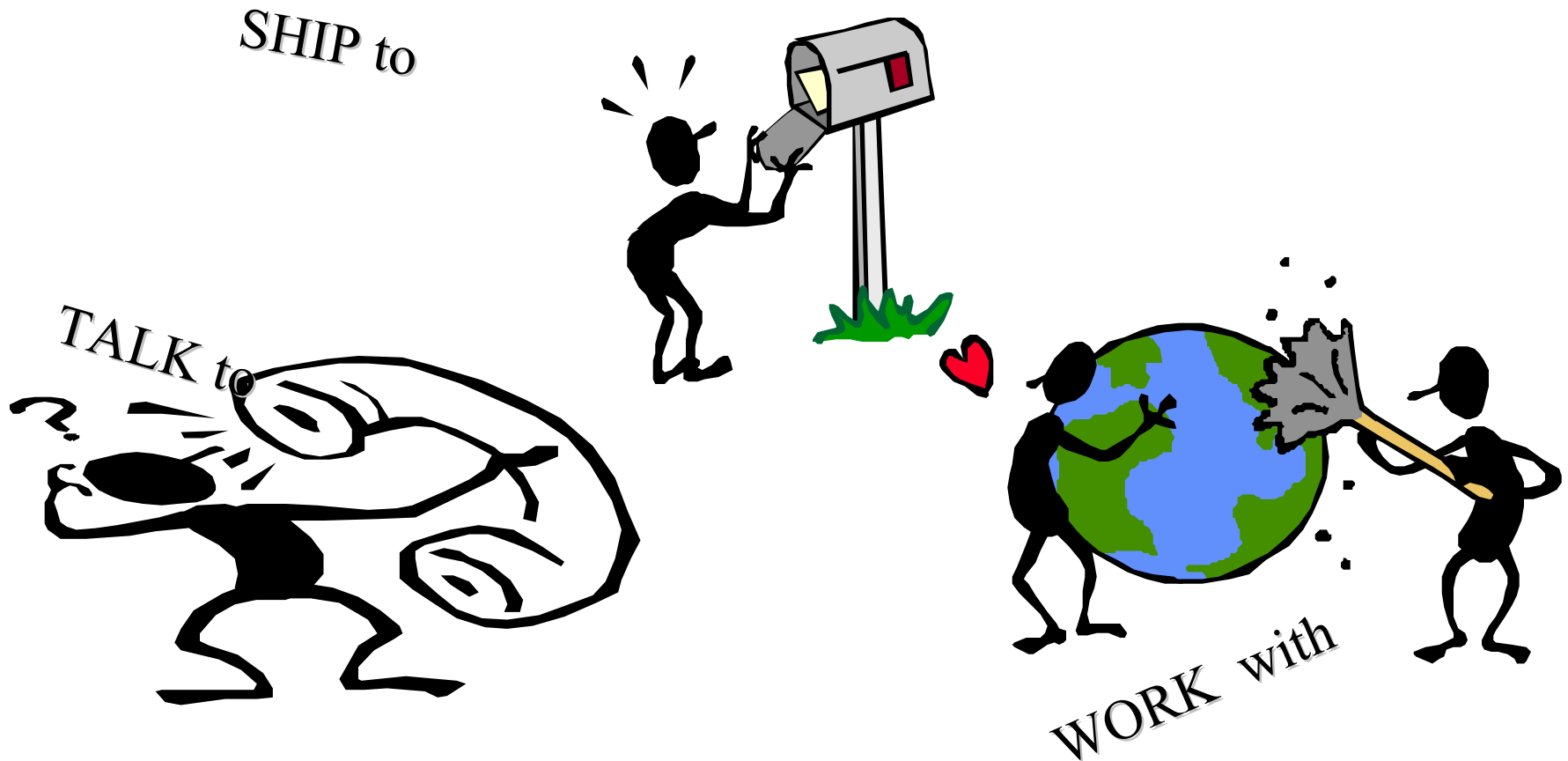


FUNDAMENTAL RESEARCH AND THE INTERNATIONAL TRAFFIC IN ARMS REGULATION

ECCO Seminar
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What does it mean to EXPORT?



FOREIGN COUNTRIES & NATIONALS

EXPORT CONTROLS

- ❖ Several federal agencies regulate exports, including
 - o State (national security) – the ITAR
 - o Commerce (trade controls) – the EAR
 - o Energy (special nuclear materials, nuclear weapons)
 - o Treasury (money, gold, silver, etc.)

The Most Relevant Regulators

EAR

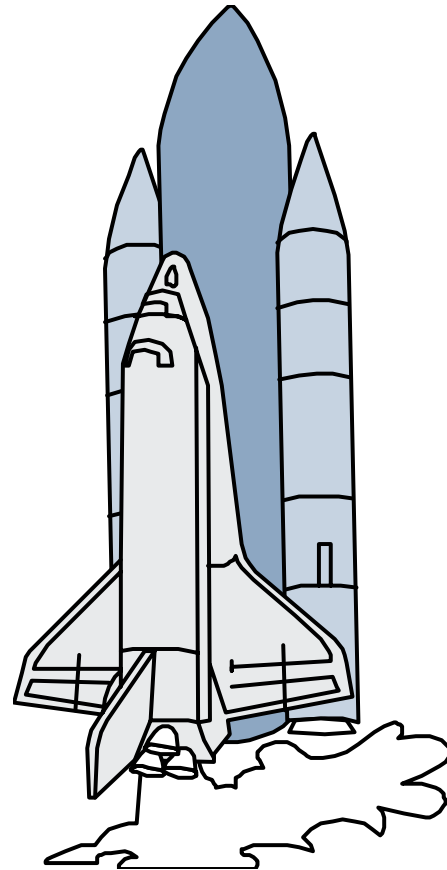
US Department of Commerce

- o The Export Administration Act of 1979 -- implemented by the Export Administration Regulations

ITAR

US Department of State

- o The Arms Export Control Act -- implemented by the International Traffic in Arms Regulations



Export Control Clauses & Requirements



- ❖ DOD -- Questionnaire for Public Trust Positions
-- National Agency Check
- ❖ DOD -- Militarily Critical Technical Data
Agreement DD2345
- ❖ FAR 52.215-9530 Foreign Nationals subject to
Export Controls
- ❖ Public Law 105-261 The Strom Thurmond
National Defense Authorization Act of 1999
- ❖ Air Force Acquisition Clause 5353.227-9000,
Export-Controlled Data Restrictions

Of Current Concern to ACADEME:

❖ The State Department's

International Traffic in Arms Regulation

22 CFR 120 et seq; www.pmdtc.org/reference.htm#ITAR

- o Currently affecting space-based and satellite-reliant research
- o The primary focus of this discussion

WHY??

- ❖ Strom Thurmond National Defense Authorization Act for FY 1999 (10 USC 7420)
 - o Amended the Munitions List (22 CFR 121)
 - Commercial Communications Satellites
 - Research, Scientific, Experimental Satellites
 - AND associated equipment, related systems, and payloads
 - o Previously on Commerce Dual Use List
 - Preponderantly civilian use
 - Specifications had been in the Public Domain

- Subjects unclassified, non-secret space-based or satellite-related fundamental research to “deemed export” constraints
- Chilling effect on informal scientific exchanges, formal collaborations, international contributions, participation by foreign students

WHAT ARE EXPORT CONTROLS?

The **shipment** outside our borders of certain specified goods and technologies must be authorized through the issuance of an **export license or other authorization**.

The **disclosure** by almost any means of certain information -- **to foreign nationals**, whether in the U.S. or abroad — may also require an **export license or other authorization**

- ITAR, however, does not make visual access of controlled technology by a foreigner in the U.S. an “export”

A FEW BASIC I.T.A.R. DEFINITIONS

- ❖ FOREIGN PERSON is an individual of non-U.S. origin who is not a citizen, a permanent resident alien, or of other protected status (22 CFR 120.16)
- ❖ EXPORT is the release or disclosure of *controlled* technology or data to a foreign national, whether here or abroad (22 CFR 120.17)
 - o “Deemed Export” takes place **within the U.S.**
- ❖ TYPICAL “Deemed” EXPORTS:
 - o web posting of export controlled information
 - o International scientific exchanges/collaborations regarding controlled data or technology
 - o attendance of foreign nationals at conferences involving export controlled technology or data

Definitions, con't.

- ❖ A Defense Article is ANYTHING on the Munitions List (22 CFR 120.6)
- ❖ Technical Data is just about any information pertaining, in any way whatsoever, to a Defense Article.
 - o This definition does not include information in the public domain, basic marketing information, **or information concerning general scientific, mathematical or engineering principles commonly taught in schools, colleges and universities.** (22 CFR 120.10)

Definitions, con't.

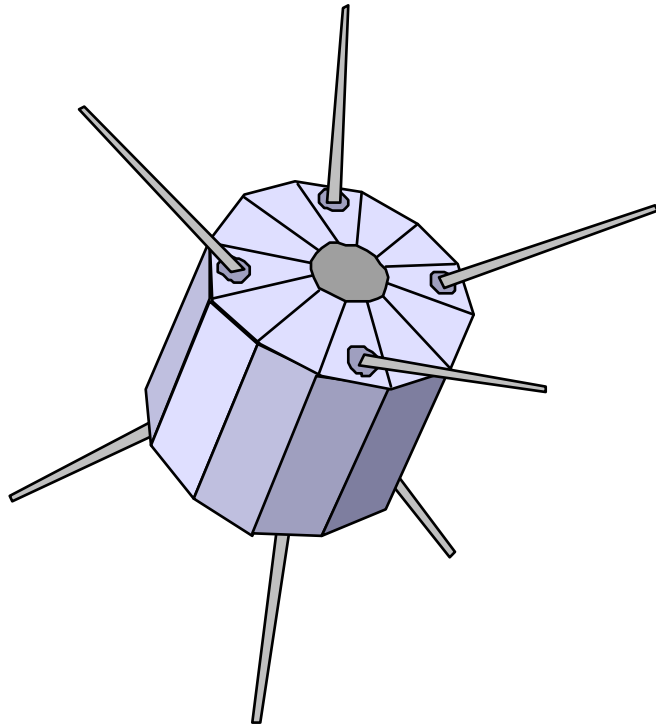
Technical Data is supposed to be
“inherently military in character”:

- 1) Classified information relating to defense articles and defense services
- 2) Items that appear on, or are closely related to, the U.S. Munitions List
- 3) Information covered by an invention secrecy order
- 4) Information directly related to the design, engineering, development, production, processing, manufacture, use, operation, overhaul, repair, maintenance, modification or reconstruction of defense articles.

So?

- ❖ Articles on the Munitions List and related Technical Data may not be exported without a license issued by the State Department
 - o Licenses impose access, dissemination, and participation restrictions
 - International academic collaborations
 - Foreign student and researcher participation
 - Global sharing of research data
- ❖ Enormous impact on **unclassified public domain** space-based or satellite reliant research

WHY WORRY?



- ❖ Control over the dissemination of “technical data” -- limits freedom to publish and talk about research
- ❖ Restrictions on access of information by foreign nationals (including faculty, students & postdocs) – could prohibit foreign nationals from working on projects
- ❖ Restrictions on visas to foreign visitors & collaborators – could prohibit foreign visitors or collaborators to visit laboratory
- ❖ Restrictions on publications of research results – could impose time delays, reviews and approvals

Why Worry? Continued.....

- ❖ Restrictions on attendance at conferences and seminars -- prohibits presentation of results or discussions of projects to audiences where there are foreign nationals or at international conferences abroad
- ❖ Restrictions on the export of dual-use goods and technologies
 - o Scientific satellite hardware and related technologies
- ❖ Control of the export of “technical data” to a foreign national regardless of whether the foreign national is in the U.S. or abroad
- ❖ Requirements for fingerprinting or answering security questionnaires

What To Do?

Exclusions, Exemptions, Exceptions

Exclusions, Exemptions, Exceptions:

EXCLUSION (NOT SUBJECT TO ITAR)

❖ Information in the Public Domain

(22 CFR 120.11)

- o Information published and generally accessible to the public in any form:
- o Information published in books, periodicals, magazines (electronic or hardcopy)
- o Information released at symposia, seminars, conferences, workshops, etc.

AND

- o Information deriving from Fundamental Research

Exclusions, Exemptions, Exceptions con't.

EXCLUSION (NOT SUBJECT TO ITAR)

❖ Information concerning general scientific, mathematical or engineering principles commonly taught in schools, colleges and universities or information in the public domain. 22 CFR 120.10(5)

Exclusions, Exemptions, Exceptions, con't.

EXCLUSION (NOT SUBJECT TO ITAR)

❖ Fundamental Research

- o Basic and applied research in science and engineering, the results of which are ordinarily are published and shared broadly within the scientific community**
 - distinguish from proprietary research and from industrial development, design, production, manufacture and product utilization, which ordinarily are disclosure-restricted for proprietary or national security reasons.
 - **Research that is subject to access, dissemination, or participation restrictions does not qualify!**

BASIS FOR THE FUNDAMENTAL RESEARCH EXCLUSION

National Security Decision Directive 189*

Fundamental Research defined: basic and applied research in science and engineering, the results of which are available to the interested scientific community

- o National Policy: No restriction may be place upon the conduct or reporting of federally funded Fundamental Research that has not received national security classification
- o Reflected in ITAR at 22 CFR 120.11(8)

*Executive Order 12356 (1985)

www.epic.org/open_gov/eo_12356.html

Fundamental Research Exclusion, con't.

State Department formally announced that
it does not regulate,
never has regulated, and
does not intend to regulate

Fundamental Research

(67 Federal Register 15099, 29 March 2002)

❖ Federal Acquisition Regulation 27.404(g)(2)

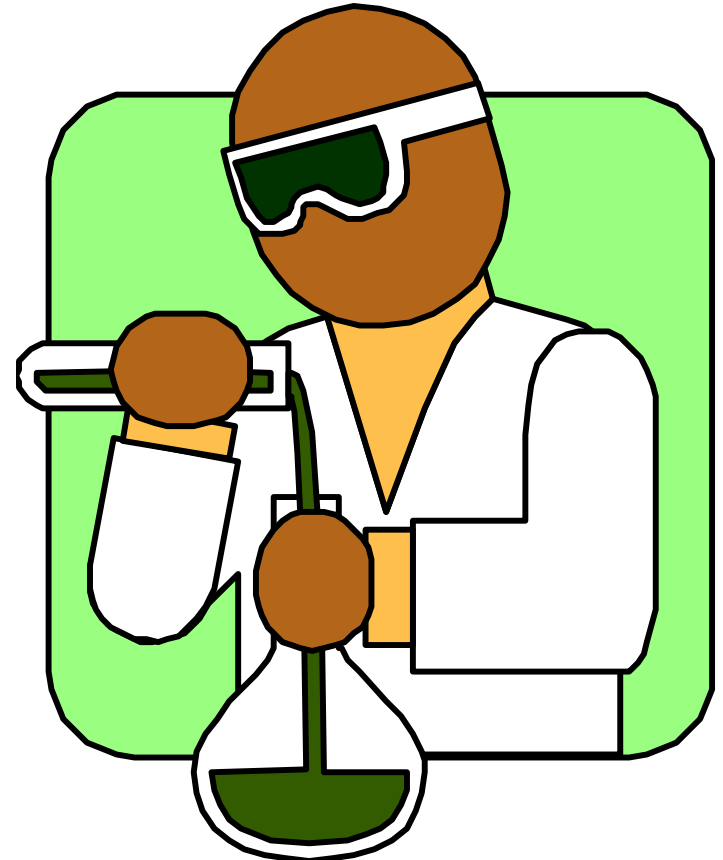
- o “In contracts for basic or applied research universities are colleges, no restrictions may be placed upon the conduct of or reporting on the results of unclassified basic or applied research, except as provided in applicable U.S.Statutes.”

❖ DoD Supplement to the FAR

- o “It is DOD policy: ... to allow the publication and public presentation of unclassified contracted fundamental research results. The mechanism for control of information generated by DOT funded contracted fundamental research ...is security classification.”

So Keep it Fundamental -- it's EXCLUDED!

- 📄 Fundamental research is
“Basic and applied research in science and engineering, where the resulting information is ordinarily published and shared within the scientific community”
- 📄 Fundamental research & fundamental data are
EXCLUDED from
Export Control Regulations pertaining to
“deemed exports”
- 📄 **If the research carries disclosure restrictions, it is not “fundamental” !**



Keep It Fundamental: Don't Accept Contract Restrictions



BEWARE

- ❖ Participation, Access, and Dissemination Restrictions
 - o Prepublication reviews
 - o U.S. citizen only meetings
 - o Classified, Proprietary or otherwise Secret work
 - o Other “national security” controls

SCREEN incoming research opportunities in order to be able to decline projects carrying such restrictions

❖ **REPEAT:** Acceptance of participation, dissemination, and access restrictions sought by the government or other sponsor may destroy a university's ability to characterize its work as "Fundamental Research"

22 CFR 120.11(8)(i) and (ii)

- o Deemed Export Restrictions apply to international collaborations, researching involving foreign students, etc.

❖ **NEGOTIATE**

- o Demonstrate PUBLIC DOMAIN nature of work
- o Point to the Registration Exemption
- o Offer Alternative Clauses
 - X College will abide by *applicable* law

Exclusions, Exemptions, Exceptions con't.

REGISTRATION EXEMPTION

- ❖ Registration with Office of Defense Trade Controls, a prerequisite to licensing, is not required for “persons” (a definition that includes any entities authorized to do business in the U.S., such as universities) that
 - o engage only in the fabrication of articles
 - o “for experimental or scientific purposes,
 - o including research and development.”

22 CFR 122.1(b)(4)

Exclusions, Exemptions, Exceptions con't.

Full Time Bona Fide Employee Exemption

❖ Foreign Persons who are

- **Regular & Full Time Employees**
- **of U.S. Institutions of Higher Education**

are eligible to receive, without a license, controlled data IF

- 1. the employee's permanent abode throughout the period of employment is in the U.S.;**
- 2. the employee is not a national of a country to which exports are prohibited; and**
- 3. the institution informs the employee that the data may not be further disclosed to another foreign national without the prior written approval of the State Department**

➤ **Query if this is true if another exemption is available?**

22 CFR 125.4(10)(b)

Exclusions, Exemptions, Exceptions con't

University Exemption - Technology

- ❖ U.S. Institutions of Higher Education do not need a license to export articles they have fabricated for fundamental research purposes, including research, scientific and experimental satellites to
 - **EU, NATO-allied, Strong Non-NATO allied countries or**
 - **Member countries of the European Space Agency**
 - **SO LONG AS**
 - **For Fundamental Research**
 - **All of the information about the article, including its design and all of the resulting information obtained through fundamental research involving the article will be published and shared broadly within the scientific community and**
 - **Is not restricted for proprietary or national security reasons**

Exclusions, Exemptions, Exceptions con't.

University Exemption – Data

- ❖ Information about experimental, scientific, and research satellites fabricated exclusively for use in fundamental research may be shared with countries and nationals of countries identified in 22 CFR 123.16(b)(10)(i) when
 - **Engaged in international fundamental research**
 - **Under the aegis of an accredited U.S. institution of higher education**
 - **In direct support of Fundamental Research as per 22 CFR 120.11(8)****AND**
 - **Limited to discussion on assembly and integration into the satellite or spacecraft of the experimental/research device****22 CFR 125.4(d)**

HOWEVER, ...

Exclusions, Exemptions, Exceptions con't.

...The EXCEPTION to the EXEMPTION

- ❖ **The University Exemption at 125.4(d) is limited by all the provisions of 123.16(b)(10)**
- ❖ **Discussions Permitted by 123.16(b)(10) are limited to**
 - Information in the public domain pursuant to the Fundamental Research Exclusion
 - Information not restricted for Proprietary Reasons
 - Information not subject to U.S. dissemination and access restrictions (such as the ITAR)
- ❖ **Not a problem for Fundamental Research Universities**
 - **But affects universities' relationships with *vendors, subcontractors, suppliers...***

THE REAL PROBLEM:

export-controlled information held by third parties

- ❖ Vendors and Subcontractors on University Space-Based Research
 - o Interface and assembly information is ITAR-controlled
 - “Technical Data” that universities may need mating the experimental device to the vendor’s equipment or component
 - Disclosure may be a “defense service” by the vendor, requiring them to get a license to share with the university
- ❖ Third Party interface and assembly data is likely to be disclosure restricted either because
 - o It’s PROPRIETARY
 - o It’s ITAR controlled
- ❖ HOW DO WE GAIN ACCESS TO THIS NEEDED DATA WITHOUT SUBJECTING THE UNIVERSITY TO RESTRICTIONS THAT COULD DESTROY THE FUNDAMENTAL RESEARCH NATURE OF THEIR WORK?

POSSIBLE EXEMPTIONS

❖ **If the ITAR is applicable to a Vendor's data, is there an exemption or exception available?**

- o Foreign nationals may be eligible to see a third party's controlled data if
 - Citizen or Green-Card Holder or
 - A bona fide full-time regular employee of an institution of higher education
 - That is, someone working for a University on an H1B visa
(22 CFR 125.4(b)(10))

The State Department's Solution to the Problem:

- ❖ The “University Exemption” for space-based fundamental research - 22 CFR 125.4(d)
 - o Accredited U.S. institutions of higher education are exempt from this licensing requirement when
 - Foreigners are nationals from EU, NATO, or Strong Non-NATO countries
 - engaged in fundamental research under aegis of accredited US university
 - In direct support of fundamental research AND
 - Concerning only assembly and/or integration of a controlled article into a scientific, experimental, or research satellite (no launch information)

THE CATCH:

- ❖ The information to be disclosed must satisfy the requirements of 22 CFR 123.16(b)(10):
 - o All the information about the article, including its design, “will be published and shared broadly within the scientific community, **and is not restricted for proprietary reasons or specific U.S. government access and dissemination controls** or other restrictions accepted by the institution or its researchers on publication of scientific and technical information resulting from the project or activity”
- ❖ In other words, only Public Domain information

The Restriction Eviscerates the Exemption

- ❖ State intended to aid universities in their fabrication of research, experimental and scientific satellites and payloads
- ❖ ITAR by its terms already does not control public domain information
- ❖ None of the Third Party data at issue would be in the public domain (that is the heart of the problem)

CASE STUDIES

See Handout